LEARNING TREE
INTERNATIONAL

Defend Your Organization From Cyber Threats

with a Skills-Based Framework Approach & Fully-Mapped Paths by Job Roles

Featuring Accredited Certification Training from Cyber Security Industry Experts:

CompTIA   ISC2 OFFICIAL TRAINING PREFERRED PARTNER   ISACA Accredited Elite Partner   EC-Council Accredited Training Center   Microsoft Partner   CERTNEXUS Authorized Training Partner

Cyber Security Threats Are On The Rise

What's the best way to protect against attacks - and avoid becoming headline news?

$11.4 million
The cost of global cybercrime per minute

– RiskIQ

58%
58% of CISOs said their IT systems were definitely or probably under attack without them knowing it

– Core Security

4 Million
The number of trained cyber professionals needed to close the skills gap

- ISC2 Cybersecurity Workforce Study

Optimize Your Cyber Security Workforce by Leveraging Industry Frameworks

Learning Tree's holistic skill-based training is mapped to two key industry frameworks to address gaps and create better alignment between people, processes, policy, and technology.

The National Initiative for Cybersecurity Education (NICE) Framework

The NICE Framework has seven categories, each comprised of several specialty areas. Each specialty area is comprised of tasks, as well as the Knowledge, Skills, and Abilities (KSAs) required to complete the tasks.

National Institute of Standards & Technology (NIST) Framework

With the NIST Cybersecurity Framework, an organization can overlay the Framework across current processes to determine gaps in its current cyber security risk approach and develop a roadmap to improvement.

People

Having a clear, up-to-date understanding of job roles and the competent people to fulfill those roles is essential for any organization to function effectively in a cyber security environment.

Process/Policy

Cyber attacks are evolving and striking organizations constantly. To continuously defend your organization from these threats, your workforce needs to establish structured processes and implement best practices.

Technology

While new technology can be easy to acquire, your organization will still be at risk of an attack until your people have the right security skills. By providing your workforce with the right cyber security training, your technology will be implemented at full potential.

Learning Aligned to the International Standards Organization

ISO/IEC 27001 is an information security standard and part of the ISO/IEC 27000 family of standards. It is published by the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC). Its goal is to provide a standard to align security practices and methodologies. Adhering to this standard can help keep your organization safe. ISO 27002 is the list of detailed controls that can be referenced to meet the standard. ISO 27001 has a rigorous certification process and passing this is a coveted achievement.

Course Alignment

Courses in our NICE Framework learning paths also align to the following ISO 27001 areas.

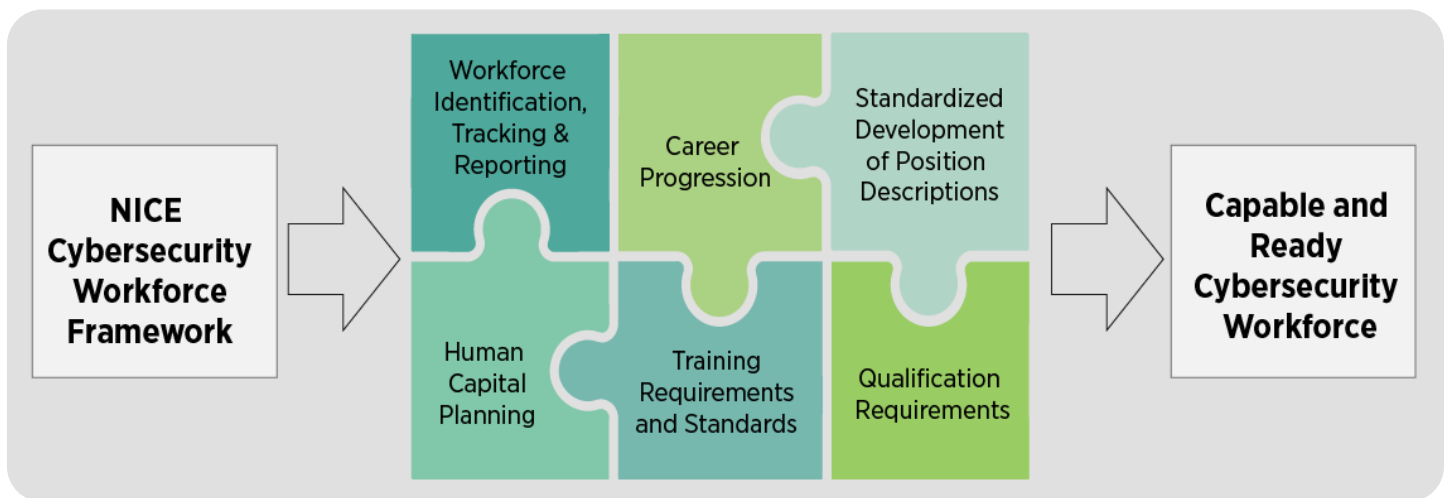| NICE/NIST Category	ISO 27001	Learning Tree Learning Path Section
Oversee & Govern	**Security policies A5** (what & how to) **Organization of information security A6** (including mobile and homeworking) **Human resources security A7** (joiners, movers & leavers) **Supplier relationships A15** (agreements, SLAs, reviews, risk)	**Executive Cyber Leadership** **Cyber Security Management** **Strategic Planning & Policy** **Project/Program Management and Acquisition**
Operate & Maintain	**Asset management A8** (acceptable use, classification & media) **Information security aspects of business continuity management A17** (business continuity, disaster avoidance, IT redundancy) **Compliance A18** (laws, regulations, privacy, information security reviews)	**System Administration** **Data Administration** **Customer Service & Tech Support** **Network Services** **Systems Analysis**
Investigate	**Information security incident management A16** (reporting events, responsibilities, response, evidence collection)	**Forensics - FOR**
Analyze	**Operational Security A12** (change management, capacity, malware, disaster recovery, logging, monitoring, vulnerability management) **Communications security A13** (network segregation, information transfer, messaging)	**All Source Analysis** **Exploitation Analysis** **Language Analysis** **Target Analysis** **Threat Analysis**
Securely Provision	**System acquisition, development and maintenance A14** (security requirements, development and support processes)	**Software Development** **Risk Development** **Systems Requirement Planning** **Systems Development** **Technology R&D** **Test & Evaluate**
Protect & Defend	**Access control A9** (user and systems access) **Cryptography A10** (key and encryption management) **Physical environmental security A11** (entry/exit, disposal, clear desk, etc.) **Information security incident management A16** (reporting events, responsibilities, response, evidence collection)	**Cyber Defense Infrastructure Support** **Vulnerability Assessment & Management**

Learning Paths Aligned to the National Initiative for Cybersecurity Education (NICE) Cybersecurity Workforce Framework

NIST SPECIAL PUBLICATION 800-181

The NICE Framework

The National Initiative for Cybersecurity Education (NICE) Framework improves communication about how to identify, recruit, develop, and retain cyber security talent. It is a resource from which organizations can develop additional publications, tools, or training plans that meet their needs to define or provide guidance on various aspects of cyber security and IT workforce development, planning, training, and education.

The NICE Framework prescribes specialty areas of focus within high-level groupings of common cyber security functions that have an impact on an organization's ability to protect its data, systems, and operations. The framework provides a national standard for organizing the way employers, cyber security workers, and training and certification providers define and discuss cyber security work.

Learning Tree offers cyber security training in the following NICE Framework Cybersecurity Work Categories:

- Analyze
- Operate and Maintain
- Collect and Operate
- Securely Provision
- Risk Management
- Investigate
- Oversee and Govern
- Protect And Defend

Learning Tree Cyber Security Learning Paths Aligned to the NICE Framework

Analyze
Performs highly-specialized review and evaluation of incoming cyber security information to determine its usefulness for intelligence.

Level	All-Source Analyst (Role: AN-ASA-001)	Course #
Foundation	Introduction to Power BI Training	1360
Foundation	Python Fundamentals Training for Non-Programmers	1904
Foundation	Starter Guide to Cyber Security	4521
Intermediate	CompTIA Security+ Certification	446
Advanced	Cyber Security Analyst Certification (CySA+)	2047
Level	**Exploitation Analyst (Role: AN-EXP-001)**	**Course #**
Foundation	System and Network Security Fundamentals	468
Foundation	Starter Guide to Cyber Security	4521
Intermediate	CompTIA Security+ Certification	446
Intermediate	Penetration Testing: Tools and Techniques	537
Intermediate	CompTIA PenTest+ Certification	2049
Advanced	Cyber Security Analyst Certification (CySA+)	2047
Level	**Multi-Disciplined Language Analyst (Role: AN-LNG-001)**	**Course #**
Foundation	Starter Guide to Cyber Security	4521
Intermediate	CompTIA Security+ Certification	446
Advanced	Cyber Security Analyst Certification (CySA+)	2047
Level	**Target Network Analyst (Role: AN-TGT-002)**	**Course #**
Foundation	Networking Fundamentals	450
Foundation	System and Network Security Fundamentals	468
Intermediate	Certified Network Defender (CND)	2032
Intermediate	CompTIA Network+ Certification	2708
Advanced	Cyber Security Analyst Certification (CySA+)	2047

Operate and Maintain

Provides the support, administration, and maintenance necessary to ensure effective and efficient Information Technology (IT) system performance and security.

Level	System Administrator - Microsoft Systems (Role: OM-ADM-001)	Course #
Foundation	Starter Guide to Cyber Security	4521
Intermediate	Sharepoint 2019/Online Hybrid Administration	1551
Intermediate	Identity Management	2056
Intermediate	Microsoft Information Protection Administrator Training (SC-400)	8593

Level	System Administrator - Linux/UNIX (Role: OM-ADM-001)	Course #
Foundation	Linux Fundamentals	143
Intermediate	Linux Administration and Support	144
Intermediate	CompTIA Linux+ Certification	2045
Intermediate	Identity Management	2056
Intermediate	CertNexus Certified Cyber Secure Coder Training	2071
Advanced	UNIX and Linux Tools	396

Level	Systems Security Analyst (Role: OM-ANA-001)	Course #
Foundation	System Security Certified Practitioner (SCCP)	2060
Foundation	Starter Guide to Cyber Security	4521
Intermediate	Cyber Security Perimeter Defense	2010
Intermediate	Microsoft Security Operations Analyst Training (SC-200)	8591
Advanced	Certified Advanced Security Practitioner (CASP)	2046

Level	Database Administrator - SQL Server (Role: OM-DTA-001)	Course #
Foundation	SQL Programming Fundamentals	925
Foundation	Microsoft SQL Server® Introduction	2107
Intermediate	Relational Database Design	382
Intermediate	CDPSE Training Course	2041

Level	Data Analyst (Role: OM-DTA-002)	Course #
Foundation	SQL Programming Fundamentals	925
Foundation	Starter Guide to Cyber Security	4521
Intermediate	Relational Database Design	382
Intermediate	Certified Information Privacy Professional (CIPP)	2065
Advanced	Certified Information Privacy Technologist (CIPT)	2066

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Operate and Maintain
Continued

Level	Database Administrator - Oracle (Role: OM-DTA-O01)	Course #
Foundation	Starter Guide to Cyber Security	4521
Foundation	SQL Programming Fundmentals	925
Intermediate	Relational Database Design	382
Intermediate	CompTIA Security+ Certification	446
Intermediate	CDPSE Training Course	2041
Level	Network Operations Specialist (Role: OM-NET-001)	Course #
Foundation	Networking Fundamentals	450
Foundation	System and Network Security Fundamentals	468
Foundation	System Security Certified Practitioner (SCCP)	2060
Intermediate	Network Configuration & Troubleshooting	451
Intermediate	CompTIA Network+ Certification	2708
Advanced	Certified Advanced Security Practitioner (CASP)	2046
Level	Technical Support Specialist (Role: OM-STS-001)	Course #
Foundation	System and Network Security Fundamentals	468
Foundation	Microsoft Security, Compliance, and Identity Fundamentals Training (SC-900)	8590
Intermediate	CompTIA A+ Comprehensive	445
Intermediate	Microsoft Identity and Access Administrator Training (SC-300)	8592
Advanced	Certified Advanced Security Practitioner (CASP)	2046

Collect and Operate
Provides specialized denial and deception operations and collection of cyber security information that may be used to develop intelligence.

Level	All Source-Collection Manager (Role: CO-CLO-001)	Course #
Foundation	Apache Kafka: Hands-On Training	1266
Foundation	Big Data Technologies, Trends & Insights	4500
Foundation	Starter Guide to Cyber Security	4521
Intermediate	Designing/Implementing Data Integration Solutions	1231
Intermediate	Certified Information Privacy Professional (CIPP)	2065
Advanced	Critical Thinking for Problem Solving	284

Securely Provision

Conceptualizes, designs, procures, and/or builds secure Information Technology (IT) systems, with responsibility for aspects of system and/or network development.

Level	Software Developer (Role: SP-DEV-001)	Course #
Foundation	Starter Guide to Cyber Security	4521
Intermediate	Securing Web Applications, Services & Servers	940
Intermediate	Secure Coding Intermediate	1825
Intermediate	EC-Council Certified Application Security Engineer (CASE) .NET	2028
Advanced	Certified Secure Software Lifecycle Professional (CSSLP)	2059

Level	Secure Software Assessor (Role: SP-DEV-002)	Course #
Foundation	Software Testing Fundamentals	1830
Foundation	Starter Guide to Cyber Security	4521
Intermediate	Penetration Testing: Tools and Techniques	537
Intermediate	Securing Web Applications, Services & Servers	940
Intermediate	CDPSE Training Course	2041
Intermediate	CompTIA PenTest+ Certification	2049
Intermediate	CertNexus Certified Cyber Secure Coder Training	2071
Advanced	Certified Secure Software Lifecycle Professional (CSSLP)	2059
Advanced	Advanced Software Testing Analysis (ISTQB Certification)	3161

Level	Authorizing Official/Designating Representative (Role: SP-RSK-001)	Course #
Foundation	Starter Guide to Cyber Security	4521
Intermediate	Cyber Security Risk Management	2013
Intermediate	Supply Chain Cyber Security Risk Management	2014
Intermediate	Certified Risk and Information Systems Controls (CRISC)	2037

Level	Security Control Assessor (Role: SP-RSK-002)	Course #
Foundation	Starter Guide to Cyber Security	4521
Intermediate	Cyber Security Risk Management	2013
Intermediate	Certified Risk and Information Systems Controls (CRISC)	2037
Intermediate	Cyber Security Risk Assessment (U.S. Gov't)	2051

Level	Systems Requirements Planner (Role: SP-SRP-001)	Course #
Foundation	System and Network Security Fundamentals	468
Foundation	Starter Guide to Cyber Security	4521
Intermediate	Disaster Recovery Planning	289
Intermediate	Cyber Security Risk Management	2013
Intermediate	Cyber Security Risk Assessment (U.S. Gov't)	2051

Securely Provision
Continued

Intermediate	Certified Information Systems Security Professional (CISSP)	2058
Advanced	Certified Advanced Security Practitioner (CASP)	2046
Level	**Information Systems Security Developer (Role: SP-SYS-001)**	**Course #**
Foundation	System and Network Security Fundamentals	468
Intermediate	Certified Information Systems Security Professional (CISSP)	2058
Intermediate	SecDevOps Foundation® (SDOF) Certification Training	3695
Advanced	Vulnerability Assessment	589
Expert	SecDevOps Practitioner® (SDOP) Certification Training	3975
Level	**Systems Developer (Role: SP-SYS-002)**	**Course #**
Foundation	Starter Guide to Cyber Security	4521
Intermediate	CompTIA Security+ Certification	446
Intermediate	Securing Web Applications, Services & Servers	940
Advanced	Certified Advanced Security Practitioner (CASP)	2046
Level	**System Testing and Evaluation Specialist (Role: SP-TST-001)**	**Course #**
Foundation	Software Testing Fundamentals	1830
Foundation	Starter Guide to Cyber Security	4521
Intermediate	Penetration Testing: Tools and Techniques	537
Intermediate	CompTIA PenTest+ Certification	2049
Advanced	Advanced Software Testing Analysis (ISTQB Certification)	3161

NIST Risk Management
Management level risk analysis, planning, and governance.

Level	**Risk Management Professional (Role: RM-RMF-001)**	**Course #**
Foundation	Risk Management for Projects, Programs and Operations	286
Foundation	Cyber Security for Management and the Boardroom	2050
Intermediate	Cyber Security Risk Management	2013
Intermediate	Cyber Security Risk Assessment (U.S. Gov't)	2051

Investigate

Investigates cyber security events or crimes related to Information Technology (IT) systems, networks, and digital evidence.

Level	Cyber Defense Forensics Analyst (Role: IN-FOR-002)	Course #
Foundation	Starter Guide to Cyber Security	4521
Intermediate	Penetration Testing: Tools and Techniques	537
Intermediate	Certified Ethical Hacker (CEH)	2031
Intermediate	CompTIA PenTest+ Certification	2049
Advanced	Computer Hacking Forensic Investigator (CHFI)	2023

Oversee and Govern

Provides leadership, management, direction, or development and advocacy so the organization may effectively conduct cyber security work.

Level	Executive Cyber Leader (Role: OV-EXL-001)	Course #
Foundation	Cyber Security for Management and the Boardroom	2050
Intermediate	Cyber Security Risk Management	2013 -OR-
Intermediate	Cyber Security Risk Assessment (U.S. Gov't)	2051
Advanced	Certified CISO (CCISO)	2026 -OR-
Advanced	Certified Governance of Enterprise IT (CGEIT)	2038
Level	Privacy Officer/Privacy Compliance Manager (Role: OV-LGA-002)	Course #
Foundation	Certified Information Privacy Professional	2065
Intermediate	Certified Information Privacy Technologist	2066
Level	Information Systems Security Manager (Role: OV-MGT-001)	Course #
Foundation	Cyber Security for Management and the Boardroom	2050
Intermediate	Cyber Security Risk Management	2013
Intermediate	Cyber Security Risk Assessment (U.S. Gov't)	2051
Intermediate	Strategic Thinking for Operational Management	3310
Advanced	Certified Information Security Manager (CISM)	2036
Level	Program Manager (Role: OV-PMA-001)	Course #
Foundation	Strategic Thinking for Operational Management	3310
Foundation	Starter Guide to Cyber Security	4521
Intermediate	Cyber Security Risk Management	2013
Intermediate	Cyber Security Risk Assessment (U.S. Gov't)	2051
Intermediate	Skills for Program Success	3611
Advanced	Certified Information Security Manager (CISM)	2036

Oversee and Govern
Continued

Level	IT Project Manager (Role: OV-PMA-002)	Course #
Foundation	Cyber Security for Management and the Boardroom	2050
Intermediate	Project Management Introduction	296
Intermediate	Strategic Thinking for Operational Management	3310
Advanced	Project Management Professional (PMP)	276
Advanced	Certified Information Security Manager (CISM)	2036
Level	IT Program Auditor (Role: OV-PMA-005)	Course #
Foundation	Starter Guide to Cyber Security	4521
Intermediate	CompTIA Security+ Certification	446
Advanced	Certified Information Systems Auditor (CISA)	2040
Level	IT Project Manager (Role: OV-PMA-A02)	Course #
Foundation	Agile Fundamentals (ICP-FA Certification)	918
Foundation	Cyber Security for Management and the Boardroom	2050
Intermediate	Certified Information Security Manager (CISM)	2036
Intermediate	Strategic Thinking for Operational Management	3310
Intermediate	DevOps Software Certification (ICP-FDO Certification)	3641
Advanced	ISC2 CCSP Certified Cloud Security Professional	1213
Level	Cyber Policy and Strategy Planner (Role: OV-SPP-002)	Course #
Foundation	Starter Guide to Cyber Security	4521
Intermediate	Cyber Security Risk Management	2013
Intermediate	Certified Risk and Information Systems Controls (CRISC)	2037
Advanced	Critical Thinking for Problem Solving	284
Advanced	Certified Advanced Security Practitioner (CASP)	2046

Protect and Defend

Identifies, analyzes, and mitigates threats to internal Information Technology (IT) systems and/or networks.

Level	Cyber Defense Analyst (Role: PR-CDA-001)	Course #
Foundation	EC-Council Certified Cybersecurity Technician (C|CT)	2035
Foundation	Starter Guide to Cyber Security	4521
Intermediate	CompTIA Security+ Certification	446
Intermediate	Cyber Security Perimeter Defense	2010
Intermediate	Certified Ethical Hacker (CEH)	2031
Intermediate	Certified Network Defender (CND)	2032
Advanced	Cyber Security Analyst Certification (CySA+)	2047
Level	**Cyber Defense Incident Responder (Role: PR-CIR-001)**	**Course #**
Foundation	Starter Guide to Cyber Security	4521
Intermediate	CompTIA Security+ Certification	446 -OR-
Intermediate	EC-Council Certified Incident Handler (ECIH)	2025
Intermediate	Certified Ethical Hacker (CEH)	2031
Intermediate	CompTIA PenTest+ Certification	2049
Advanced	Penetration Testing: Tools and Techniques	537
Advanced	Cyber Security First Responder (CFR)	2070
Level	**Cyber Defense Infrastructure Support Specialist (Role: PR-INF-001)**	**Course #**
Foundation	System and Network Security Fundamentals	468
Foundation	System Security Certified Practitioner (SCCP)	2060
Intermediate	Cyber Security Perimeter Defense	2010
Intermediate	Certified Ethical Hacker (CEH)	2031
Intermediate	Certified Network Defender (CND)	2032
Level	**Vulnerability Assessment Analyst (Role: PR-VAM-001)**	**Course #**
Foundation	Vulnerability Assessment	589
Foundation	Securing Web Applications, Services & Servers	940
Intermediate	Penetration Testing: Tools and Techniques	537
Intermediate	CompTIA PenTest+ Certification	2049
Advanced	Certified Advanced Security Practitioner (CASP)	2046

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